

## **BOARD OF BOILER RULES MINUTES**

**September 9, 2009**

**Labor and Industries, Tacoma WA**

<b>Board Members:</b>	<b>Other Attendees:</b>
Steve Bacon, Chair	Tony Oda
Steve Prideaux**	Alicia Curry
Tim Barker	Russell Bartlett
Robert Olson	Gary Fortin*
Larry Trendera	Wayne King*
Linda Williamson, Secretary	Joseph Kennedy*

\*(ss) – Attended Study Session only

\*\*\*(ss) – Attended Board meeting only

The Board of Boiler Rules meeting was called to order by the Chair on September 9, 2009 at 10:00 a.m.

Introductions were made by the board members and guests attending the meeting.

### **Agenda item 1.**

The meeting agenda was reviewed and approved with additions to Department Notes.

### **Agenda item 2.**

The minutes from the May 6, 2009 meeting were reviewed and approved.

### **Agenda item 3.**

Grit Industries, Inc. – Request for a Washington State Special.

At the study session on September 8, 2009, Mr. Wayne King of Grit Industries, Inc. presented his case to the board for a Washington State Special for four non ASME Section IV code, low pressure boilers (models 140, 315, 770) designed and built for the heating of natural gas. The boilers were designed in Alberta, Canada to meet Canadian standards (CSA), where they were not required to be built to ASME Section IV. Mr. King provided the board with operational and design information during his presentation. The board questioned the accuracy of the stress values used in the calculations and Mr. King admitted the design did not meet ASME Section IV calculations at a MAWP of 30 psi or even at 15 psi. He asked if reducing the design MAWP to 7.5 psi or even 2 psi would satisfy the board and if Larry Trendera, the board's P.E. would run some calculations for Grit Industries that would be considered satisfactory. Larry declined, as it is not the board's job to design boilers for others, especially for them to qualify for a state special.

The board reviewed the previous day's discussion and determined these boilers to be under the jurisdiction of the Department of Transportation (DOT) according to section 192.153, which covers gas transmission pipelines. The board will send a letter to Grit Industries, Inc. notifying them of their decision and will provide them with a DOT contact person for follow up.

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### Agenda item 4.

Election of the chair.

The department and board discussed the end of term tenure for Steve Bacon, which officially ended on August 29, 2009. At present, there has been only one application submitted to the Governor's office for the Owner/User position. The department and board will continue searching for qualified applicants and will notify them of the open position. Steve has agreed to remain on the board until a new Owner/User member has been selected. The election of a new chair was tabled and will be added to the November agenda for further discussion.

### Agenda item 5.

WAC 296-104-010 Administration – Discuss draft revision of definitions for:

- a. Water heater (including indirect fired heaters) for tanks over 120 gallons.  
The board submitted an addition to the definition of “water heater” to clarify confusion that indirect water heaters with an absorption rate exceeding 200,000 BTUs needs to be ASME code stamped. The board approved the revision as follows:

**“Hot water heater”** shall mean a closed vessel designed to supply hot water for external use to the system. All vessels must be listed by a nationally recognized testing agency and shall be protected with an approved temperature and pressure safety relief valve and shall not exceed any of the following limits:

\* Pressure of 160 psi (1100 kpa);

\* Temperature of 210 degrees F (99°C);

Additional Requirements:

\* Hot water heaters exceeding 120 gallons (454 liters) must be ASME code stamped.

\* Hot water heaters exceeding 200,000 BTU/hr (58.58 kw) input must be ASME code stamped.

\* Indirect fired water heaters with absorption rates exceeding 200,000 BTU/hr (58.58 kw) must be ASME Code stamped.

- b. Low pressure heating boiler.

The department requested a proposed revision to the definition of “low pressure heating boiler” to reflect current department policies that have been accepted and enforced, but have never been written into the WAC rules. The revisions included removal of the reference to “or vapor” and “or other fluids”, since these references are not within the scope of ASME Section IV; and the addition of two exemptions for low pressure heating boilers that operate on an open system at atmospheric pressure with the concurrence of the inspector and for factory sealed vacuum boilers as described in ASME Section IV. The department has always exempted low pressure boiler systems open to atmosphere, due to the absence of a safety hazard to the public. The board approved the revisions as follows:

**“Low pressure heating boiler”** shall mean a steam ~~or vapor~~ boiler operating at a pressure not exceeding 15 psig or a boiler in which water ~~or other fluid~~ is heated and

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intended for operation at pressures not exceeding 160 psig or temperatures not exceeding 250 degrees F by the direct application of energy from the combustion of fuels or from electricity, solar or nuclear energy, ~~excluding lined hot water heaters supplying potable hot water for external use to the system.~~ Low pressure boilers open to atmosphere and vacuum boilers are excluded.

c. Pool heaters.

The department submitted a request to add a new definition for “pool heaters” to eliminate conflict between ASME requirements and the Washington State Boiler and Pressure Vessel law and to eliminate confusion for manufacturers, installers, and inspectors. Linda Williamson provided the board with a summary on the history of the definition, which included a past pool heater definition that was created in 2000, revised in 2002, and eventually removed. The department feels there is a need for this definition in our laws to remain consistent with codes already adopted. The department will further research and revise the definition for a progress report at the November meeting.

### Agenda item 6.

WAC 296-104-100 Inspection – Discuss draft revision for low pressure boiler inspection frequency.

The department requested a revision of WAC 296-104-100 to reflect recent changes in the RCWs that allow the Board of Boiler Rules to extend inspection frequencies for internal inspection of low pressure heating boilers, as was written in 2003. The board approved the revision to item 3 as follows:

**(3) Low pressure ~~heating~~ boilers** shall be inspected:

(a) Externally while in operation and under pressure – Biennially

(b) Internally while not under pressure (except ~~W~~where construction does not permits, an internally) – Every 4<sup>th</sup> year. while under pressure. Also, as a minimum, an internal of their low water fuel cutoff(s) must be completed, where construction permits – Biennially.

(c) Internally, all steam heating boilers will have as a minimum, an internal of their low water fuel cut off – Biennially.

(d) Internally, none required for nonvapor boilers using glycol, or adequately treated with corrosion inhibitor.

### Agenda item 7.

Inspection – Discuss new WAC requirements for rental unfired pressure vessels.

This agenda item involved the addition of a proposed new WAC 296-104-152, requested by the Washington State Petroleum Association (WSPA) group for addressing the inspection requirements of rental unfired pressure vessels. The board found this WAC to be redundant and not needed in the boiler law at this time, due to the recent revisions made in WAC 296-104-273 that went into effect as of June 30, 2009. This new proposed WAC was withdrawn and removed from the agenda.

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### **Department Notes:**

The department commented that a group of individuals are interested in the possibility of Washington State developing a reciprocal agreement recognizing antique boilers that are certified in other jurisdictions. The department will do research on how other states are inspecting and certifying these antique boilers and will present their findings for continued discussion at the November meeting.

The department may propose a revision to WAC 296-114-303 for requirements on remote manual shut-offs to include electric boilers.

The department provided a progress report on the conflict in our boiler law with ASME Section IV for low pressure heating boilers, when it pertains to the requirement for low water cut off devices for fired hot water boilers. The ASME Section IV requirement is applicable to fired hot water boilers with heat input greater than 400,000 BTUs. The boiler law requires a low water cut off device with heat input greater than 200,000 BTUs. This conflict often requires installers to install additional limit and control devices to comply with our boiler laws. This situation can cause the manufacturer's warranty on the low pressure boiler to be void and may cause the state to be liable for any problems or accidents. The department is reviewing this issue and will make a decision if a revision is necessary.

Meeting adjourned at 10:55 a.m.